IEIP Brief

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An Update on Activities at the International Emerging Infections Program, Thailand

Despite our efforts to focus on expanding commitments in surveillance and research this quarter, avian influenza continues to demand our attention. We are delighted with the addition of administrative specialist Bryan Sweeney, who is taking on many of Mark Simmerman's previous responsibilities. Bryan's arrival has allowed Mark to assume the role of coordinator for a growing list of influenza activities at IEIP. Avian influenza brings great challenges, as highlighted by the ongoing risky poultry practices identified in the KAP survey, and also new opportunities, highlighted by the increased interest in flu vaccine as a preventive approach. – *Scott Dowell*

Outbreak Response

Avian influenza is back in Thailand. Surveillance for disease in poultry and human has continued since the last human case of avian influenza was reported in March. On July 3, the Department of Livestock Development (DLD) at the Ministry of Agriculture reported abnormal deaths of layer chickens in a farm in Ayuthaya; these deaths were later confirmed to be H5N1. To increase outbreak detection sensitivity, DLD now initiates culling and quarantine activities if >10% of poultry are sick or dying poultry. As of September 97 spots in 26 provinces were confirmed to be affected areas. In September there was one human death from H5N1 infection; the patient lived in Prachinburi Province. BOE and IEIP investigated the case and conducted active case finding in the village.

The Influenza Foundation of Thailand hosted a timely seminar entitled "Moving Towards Prevention and Control of Influenza Pandemic in the Next Decade." The event brought together experts from Thai MoPH and academia, U.S. CDC, WHO, and Hong Kong University (picture, below).

International participants attend a scientific seminar hosted by the Influenza Foundation of Thailand.

Surveillance

IEIP will receive funding from the Pneumococcal Vaccines Accelerated Development and Introduction plan (PneumoADIP) at Johns Hopkins Bloomberg School of Public Health to enhance microbiology in their pneumonia surveillance system in Sa Kaeo and Nakhon Phanom. Project funding is for 3 years and will support the purchase of automated blood culture machines for all 20 hospitals, as well as hiring and training of staff. The goal of the project is to determine the population-based incidence of pneumococcal infections among children and adults in rural Thailand.

Variable	Before N (%)	After N (%)	*p*-value
Knowledge and attitudes			
Thought it was safe to touch sick/dead poultry with bare hands	78 (40)	27 (14)	<0.01
Thought it was safe for children to touch sick/dead poultry with bare hands	45 (23)	9 (5)	<0.01
Practices			
Touched sick or dead poultry with bare hands	76 (39)	22 (11)	<0.01
Children in your household touched sick or dead poultry with bare hands	12 (6)	7 (4)	0.4
Took dead chicken or poultry from your yard and prepared it to eat	24 (12)	17 (9)	0.3

Knowledge, attitudes, and practices before and after respondents reported hearing about avian influenza.

Research

In response to the resurgence of avian influenza, IEIP and the Bureau of Epidemiology performed a knowledge, attitudes, and practices survey in Nakhon Phanom to assess change before and after persons reported hearing about bird flu. All but four of the 200 persons interviewed said they had heard of bird flu and 90% said they first heard about it on television. Overall, 73% reported having backyard poultry. Knowledge about how to protect oneself improved significantly; actual practices improved less dramatically (table, above).

Training

Khun Sirima Pattamadilok, Thai NIH scientist, will travel to CDC and learn how to do PCR for Nipah virus in Dr. Paul Rota's laboratory. Technology transfer was one of the objectives of the encephalitis study, and Nipah is an emerging pathogen of regional concern. Preliminary results of this study were presented in late August by IEIP collaborator Khun Krongkaew Supawat, Thai NIH, at the MOPH annual meeting held in Phuket. An etiology was found in 68% of the first 44 cases. Recently, 2 U.S. students, Matthew Johns, Emory University's Rollins School of Public Health, and Dr. Adam Cohen, University of Washington School of Public Health, worked with IEIP staff to analyze and summarize data from ongoing studies.